

THE ROYAL COMMISSION ON POPULATION

The Demographic Position

By Sir CHARLES ARDEN-CLOSE, K.B.E., C.B., F.R.S.

THE Royal Commission on Population, consisting of Lord Simon as chairman and fifteen members, was appointed on March 3rd, 1944. One member resigned in 1946, and Lord Simon resigned the chairmanship in May 1946, his place being taken by Sir Hubert Henderson. The *Report* was signed on March 18th, 1949, so that the Commission was in being for five years. The *Report* is published by the Stationery Office in a handy little volume of 260 pages.

This review is an attempt to estimate the value of the *Report* from a demographic point of view, leaving the eugenic and economic aspects to be dealt with by expert authorities. The Statistics Committee, with whose work we are now chiefly concerned, was presided over by Sir Alexander Carr-Saunders. Certain special investigations were undertaken by the Commission, notably the family census of 1946, which was carried out "to discover what were the numbers and distribution of families of different size in Great Britain" and to trace the changes that had taken place in the trend of the size of families.

It is noted in the introduction to the *Report* that it is by no means safe to predict, from past statistics, what may be the likely course of events in the future. This difficulty is illustrated by the unexpected variations in the birth-rate between 1920 and 1948. Thus, the number of births in 1948 was 25 per cent higher than the average during the years 1935-8, and so on. We may be permitted to remark that many painstaking tables of prediction of the future totals of our population, which were published some years ago and contributed to the creation of a general feeling of anxiety as to a possible "catastrophic" fall in our numbers, were entirely falsified by events. It was chiefly this unjustified public anxiety which

led to the appointment of the Royal Commission, so that some good came of it after all, for the *Report* of the Commission is a valuable and authoritative addition to our demographic literature.

After the introduction we have eight chapters under the general heading "The Trend of Population," commencing with an account of the past growth of numbers in this country and in the world at large. Great Britain, in spite of its small size, has the eighth largest population among the fifty countries of the world, including those giant areas the United States, China and Russia. About the year 1700 our population was about one-seventh of what it is now. "The growth of population in Great Britain was . . . an essential condition not only of the development of Britain itself as a great and rich nation, but also of the growth of the new overseas countries inhabited mainly or largely by people of British descent." In fact, British emigration in the nineteenth century not only relieved pressure at home but increased British influence in the world at large. But an eventual decline in the rate of increase at home was, of course, inevitable, and the obvious fact is pointed out that a continuous increase of the nineteenth-century pattern would have resulted in such enormous numbers that it would have been impossible to support them, and that "the growth of population in Great Britain would ultimately have been slowed down by the Malthusian forces of famine and disease."

As to age distribution, we may consider the group of the "over 60's," and we shall find that whereas in 1891 they amounted to 7 per cent of the total population, in 1947 they accounted for no less than 15 per cent. The character of the change in the age structure is shown clearly by the age pyramids which are drawn for those two years, the latter being similar to that given in this

REVIEW for October 1948.* It is stated that the average age of our population has risen from 27 years in 1891 to 35 years in 1947. Oldish people must take a larger share in the work of the country. The remark may be hazarded that there is some reason to think that, nowadays, the middle-aged and old work more conscientiously than the young.

The chief factors which determine the trend of population are, of course, migration, deaths and births. The migration figures from 1871 are analysed, and it is shown that, during the forty years to 1911, the net emigration amounted to nearly 2 million, or about one-ninth of the national increase, and this did not greatly slow down the growth of population. But, owing to the greater number of male emigrants, there resulted a considerable surplus of women at all adult ages, and this, in its turn, affected the marriage statistics.

Passing from the census of 1911 to the difficult years of the first world war, with their loss of hundreds of thousands of young men, we come to the troublesome post-war period and the depression of the 'thirties; we find that between 1931 and 1941 there was a net inward migration of 650,000, the majority being Britons impelled to return by the world depression. It is suggested, however, in this *Report*, that the effective cause of variations in migration is not only the trade cycle but that some more permanent cause is also at work.

Only a few of us emigrate, and not everybody marries, but all of us die, so that the study of mortality rates is of interest to all of us. Several tables are given to illustrate the effect of this factor, notably a table of survivors of females to various ages, from birth to over 85, and a comparison is made between a life-table of 1838-54 with one of 1942-4. It appears that "under the mortality of a century ago only about two-thirds of the female population reached the age at which they would begin to marry," whereas, at present, 90 per cent survive to that age. There has been much improvement in the survival rates at young and middle ages; it

now remains to improve substantially the expectations of the "over 65's."

We now come to the question of births, the question which was the cause of the appointment of the Commission. The first table given is that of the proportion of persons, of ages 45-54, who were or had been married. This proportion is shown to be very constant for the period given (1871-1947), and amounts, on an average, to about 87 per cent, with but slight variations. But, though the total proportion is stable, the age at which people marry "can vary a great deal." And an important fact is that the numbers of those marrying in the age group 20-4 has risen in recent years. It is stated that "people in the higher social classes marry later than those in the lower."

The most important investigation undertaken by the Commission is that connected with the size of the family. The Commission did good service by carrying out a sample census of families, of which the full result will be published in a special report. Tables are given to show the steady decrease in the number of children in the average family during the past hundred years. That decrease was beginning to show itself even in the 'forties and 'sixties, the main source of information about the size of Victorian families being the fertility census of 1911. There was little information after this census until the investigation known as the sample census above mentioned.

The facts are straightforward; the average number of live births per completed family decreased from about 5 in mid-Victorian times to 2.2 now. Another expression of the same fact is that, in modern times, large families are exceedingly rare; families from 0 to 3 account for 80 per cent of the total, the largest numbers consisting of 1 or 2 children.

A table is given of the present estimated size of the completed family under two headings, manual workers and non-manual workers. It appears that the size of the average family of manual workers is now nearly half as large again as that of the non-manual workers; in figures, about $2\frac{1}{2}$ to $1\frac{3}{4}$. There are, as might be expected, differences

* P. 139.

in occupational groups, and in geographical regions, and also, though to no great extent, amongst religious denominations. But the broad picture remains, that the non-intellectual workers breed more than the intellectual, if we may so class the non-manual workers.

The report includes an interesting discussion of the extent and causes of family limitation, going back even to the customs of our very remote ancestors of the palæolithic period!

A rather intricate chapter deals with "The Recent Increase in Births," and, to begin with, a table is given showing the average annual births and deaths, in three-yearly periods, from 1922 to 1948. The first thing that would strike the reader is that, excepting the years 1940-2, the average number of deaths each year was unexpectedly constant at about 550,000. But, in those three years, 1940-2, the average number of deaths rose to 602,000, and this increase is put down to air-raid casualties. The average annual excess of births over deaths, for the years 1922-48, was 212,000, but, owing to the great variations in the birth-rates, the annual excess varied very greatly. The significant feature, however, is that, whereas this excess diminished steadily from 1922-42, during the next six years there was a remarkable increase, due to the great increase in the number of births, of which the average annual number for 1946-8 rose to no less than 934,000.

The *Report* states that "the increase in the married population has been sufficient to account statistically . . . for a considerable growth in the number of annual births." It is shown that striking increases have taken place in marriages at early ages. Thus, in the age group 20-4 there was an increase from 19.7 per cent in 1931 to 32.5 per cent in 1947. Some paragraphs deal with the effects on marriage of the second world war; the separations, the hurrying up of marriages, the earlier ages, and the slightly increased fertility.

It is stated that it appears likely that the reduction in age of marriage will tend towards the increase of the average size of the

family, and that a rise in the number of births has also occurred in other countries of North-West Europe, and that in these countries, as in our own, one of the most obvious influences in the encouragement of larger families has been the condition of full employment.

There is a short ably-written chapter on "The Question of Replacement," which all interested in our demographic position may be advised to read. It is pointed out that the notion that our numbers, though continuing to increase, were heading for a decrease, and that the number of births was well below eventual replacement level, led more than anything else to the appointment of the Royal Commission. The net, and the effective, reproduction rates, until the advent of larger birth-rates, painted much the same picture. But now we have to deal with the "remarkable increase of births which has taken place in recent years," a result chiefly of the lowering of the average age at which people marry. This will not have a lasting effect on the replacement situation unless the size of the average family increases. The Commission is doubtful if this is likely to occur, for the available indications are that the recent unexpectedly high birth-rates will not continue.

It is observed that "the crucial factor in determining the number of births in the long run is the size of the family," and the Commission is to be congratulated upon settling upon this simple expression which the public at large can understand. But, like all such expressions, it needs care in its application. It is stated in the *Report* that, "Our calculation that the present average size of the family in Great Britain is about 6 per cent below replacement level implies . . . no prediction, however tentative, that total numbers are likely to decline at this rate" during any reasonably predictable period. We can bear in mind the fact that previous predictions of heavy falls in our numbers proved very erroneous. Meanwhile, we may accept the statistical fact that the present average size of the family is probably slightly below replacement level, without necessarily lamenting the fact.

Two chapters deal with "The Future of the Population" under various sub-heads, such as mortality, marriage, family size, future numbers and migration. A chart is given of the actual age distribution in 1947, compared with a life-table distribution of the same total size, and this shows clearly the differences between our present distribution and what the Commission calls a "normal" one. In the discussion of future numbers it is assumed that the fall in death-rates will continue, and it is to be noted that it is thought that even at old ages the death-rates may diminish. Improvement in mortality rates may cause a marked increase in the total numbers, particularly on account of the larger proportion of old people.

As to the age at which people marry it is remarked that the tendency to marry earlier was to be noted during the period 1911-32, and this tendency increased after the latter date, and it "may reflect the growing acceptance of family limitation by means of birth control"; and this acceptance must be regarded as an influence making for a slow fall in the average size of the family. But "it is clearly impossible to predict confidently the future trend of average family size," though certain alternative assumptions were made use of in the calculations of the Commission.

A table is given of the average annual births, "projected on the assumption that average family size is constant at the same level as among couples married 1927-38," that mortality continues to fall and that there is no net migration. Perhaps the most useful, and simple, figure to be derived is that 700,000 births a year might be looked upon as a kind of limiting number, "the maintenance of such an annual flow of births would sustain a population about equal in total numbers to that of the present time." The table carries us as far in the future as A.D. 2047, and we need not take the calculation too seriously as regards the distant years. If we limit our outlook to 1977 we shall find that the Commission gives a projected number of annual births of 689,000, about the same as in 1933-7. But the figure does, of course, depend upon the

assumptions made. It is clearly stated that it is the size of the family that will be the decisive factor.

Figures are given of the projected size of the total population on three different assumptions of the size of the average completed family. If we content ourselves with the year 1977, the three different figures are, in millions, 50·7, 51·8 and 48·6. The actual figure for 1947 was 48·2. It may be added that it is shown that the population of the working ages, 15 to 65, will remain remarkably constant until 1977, on any of the chosen assumptions, at about 33 million. So there is not much to make a song about!

The use of the size of the average completed family in the method adopted for measuring reproductivity is dealt with, at some length, in an appendix written by the assistant secretary to the Commission. This appendix will repay study by those interested in population "projections." It is first noted that, at present, fertility clearly much more than balances mortality, but having regard to age structure, may be an unreliable guide to future growth.

Then, glancing at a "life-table" population, in which the number of births each year is equal to the number of deaths, if we take this figure as 697,000 (the average annual number of births in Great Britain in 1935-8), and we multiply this figure by the average expectation of life at birth, in years, which is now 65·08 years, we obtain a "life table" population of 45·4 million. It may be noted that in 1942 the Registrars-General used the figure 700,000 as a kind of standard figure. But it is shown that the average actual population for that period was 45·9 million. An interesting comparison, but no more.

The calculation of replacement used to be carried out by means of the net reproduction rate of the late Dr. R. R. Kuczynski, and we were all of us accustomed to this method, or the slightly modified one of the Registrar-General entitled the effective reproduction rate. This rate "defines the trend of numbers per generation that would ultimately result from the indefinite continuance in force of the age-specific fertility and mor-

tality rates" adopted. It is pointed out that "the index of replacement of the parental age group (15-49), as a whole, is a sufficiently accurate approximation" and is easier to calculate.

But the ups and downs of the birth-rates make the above methods unsatisfactory guides. We have had ample evidence of this. The defect of the method is that "it defines the demographic habits of the population in terms of age-specific fertility and mortality rates of a particular year or series of years." Then we have the following important pronouncement, "If there is any *fundamental* element in the fertility habits of married couples, common sense suggests that it lies in the average size of their completed families; and the statistics show that this is a quantity which, even in disturbed times, has not fluctuated irregularly."

We then come to the calculation of replacement from a consideration of the size of completed families. The calculation is more complex than that of the net reproduction rate to which we were accustomed, but the steps can be followed in the appendix mentioned. It might be a good thing if, eventually, a complete numerical example, in all its steps, were given. Meanwhile the character of the method can be ascertained from the appendix.

A warning is given that the method has difficulties and defects of its own. But the public is sure to like the fixing of the *size of the family* as the criterion, and will understand that, as judged by this investigation, the average size, viz. 2.2, is slightly, though only slightly, below eventual replacement level. But this does not mean that the population is likely to diminish for a long time.

The following is the "Summary of Conclusions" arrived at by the Commission:

If there is no substantial net migration, the following developments may be confidently predicted, even allowing for a considerable degree of uncertainty about future births:

- (i) Total numbers will continue to grow in the near future, perhaps even for another generation. The growth will not be rapid, and the further addition to the population which can be expected is not large.

- (ii) The population of working age will remain at about its present size for at least the next thirty years, though it will come to form a somewhat smaller proportion of the total.
- (iii) The population of young adults (15-39) will show a fall of about 1.4 million in the next fifteen years.
- (iv) The number of old people (over 65) will grow steadily over the next thirty years, the increase amounting to at least 2.3 million and very probably much more. The proportion of old people to the total will increase considerably.

It is not for an old person to object to the last prediction.

In the above Summary it is stated that the forecast takes no account of substantial net migration. But the Commission has some important remarks to make upon this matter. Three possibilities are considered, namely: no net migration; a net emigration of 50,000 a year; and a net emigration of 100,000 a year. Taking the middle assumption, the projected total population in 1977 works out at 48.8 million, i.e. rather larger than at present. The migration would, of course, affect the age structure, and the 15 to 65 group would be slightly, but not very materially, reduced. Then there is some discussion on the effect of considerable and continuous immigration; but we may hope that this is not in store for us!

It is thought by the Commission "necessary to accept the fact that, assuming Great Britain's economic position does not deteriorate, the flow of emigrants from Great Britain . . . is unlikely to be more than about a third of the number of immigrants which the other Commonwealth countries would need. . . ." This problem, of the supply of emigrants to the other British countries, involves other considerations beside that of our numbers at home, but our numbers and the population trend have a marked bearing on inter-Commonwealth policies. The maintenance of the British element is a matter of vital concern to the whole Commonwealth, and it is urged by the Commission that this grave problem should be studied jointly by the governments concerned. An admirable suggestion!

We may end by quoting a paragraph on

page 126 which is at least as important as any other pronouncement of the Commission :

The general considerations which the Committee on Empire Migration had in mind seem to us to be at least as cogent now as they were in

1932, and weighing the advantages and disadvantages of emigration, we have no doubt that it is in the long-run interests of Great Britain and the Commonwealth as a whole to maintain the flow of emigrants from Great Britain to the other parts of the Commonwealth at as high a level as possible.

ROYAL COMMISSION ON POPULATION AND THE SOCIETY'S AIMS

By C. P. BLACKER

ON April 13th, 1945, oral evidence was given on behalf of the *Society* to the Royal Commission by Dr. J. A. Fraser Roberts, Professor A. J. Lewis and myself. Previously, a memorandum prepared at the request of the Royal Commission had been submitted, and it was mainly about the contents of this document that we were questioned. The memorandum was published in the October 1945 issue of the *EUGENICS REVIEW*.

Now that the Royal Commission's report has been published we may profitably turn back to our memorandum, to-day more than four years old, and ask ourselves how far our points have been met.

We have many grounds for satisfaction. Indeed, the report of the Royal Commission compares well with the Brock Committee's report as a document almost completely vindicating the *Society's* policy as presented to these two bodies. Let us compare our written evidence with the relevant recommendations of the Commission.

Our memorandum consisted of eleven sections. It begins by quoting Galton, whose conception of what eugenics is, and what it aims at, has been partially lost sight of in the controversies of later years. Galton contended

that the inborn qualities of future generations should resemble the better rather than the worse moiety of the nation to-day ; and that our im-

perial and world responsibilities impose on us a special obligation to foster the valuable inborn qualities of our people.

Much attention has been paid by eugenists in the past to the question of differential fertility ; and a chart, specially prepared from the report of the 1911 census, of the standardized fertility of each of the eight social classes into which the population of the country was then divided, was included in our memorandum. Less attention, we said, was paid to-day than formerly to differences between classes, and more to those between intelligence. Perversions of eugenics such as the doctrines of race superiority had somewhat spoiled the word eugenics, which stands in need of rehabilitation. We compared the liberal and authoritarian conception of eugenics, the essential difference lying in the use made of the expert. In the authoritarian system the expert is vested with powers whereas, in the liberal, his function is never more than advisory.

The word eugenics contains a challenge—to define the particle "eu." Each person is entitled to his own views which will reflect his private system of values. We advanced five standards :

- (a) Sound physical and mental health and good physique ;
- (b) Intelligence ;
- (c) Social usefulness ;
- (d) Freedom from genetic taints ;